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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
GILLESPIE, BENJAMIN	

ART UNIT	PAPER NUMBER
1711	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,826	HUYNH, DIEU DAI	
	Examiner	Art Unit	
	Benjamin J. Gillespie	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-10,12 and 13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-10, 12, and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language "substantially" renders the claim indefinite because it is unclear how "substantially" modifies "solvent free".

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

3. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting

ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 7, 12, and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4, and, 5 of copending Application No. 11/625394. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications disclose aqueous coating compositions comprising polyether-polyurethane and polyester-polyurethane resins. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 7-8, 10, and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramello et al ('972) and Bayer Otto et al ('972). Ramello et al disclose a dye transfer coating composition comprising water dispersible polyether-polyurethane resin, polyester-polyurethane resin, and multifunctional cross-linking agent (Col 3 lines 45-46, 50-52, 64-66; col 4 lines 60-65; col 7 lines 64-67). In particular, patentees teach the resin to be the reaction product of aliphatic

polyisocyanate and polyether polyol or polyester polyol as well as the final dispersions primarily contain water, not solvent (Col 4 lines 27-31; col 7 lines 4-12).

6. Ramello et al go on to disclose that examples of useful polyurethane lattices are listed in U.S. Patent 3,479,310 (Bayer Otto et al) (Col 4 lines 56-57, and 59). Bayer Otto et al teach polyurethanes lattices, which are the reaction product of diisocyanate and linear polyhydroxyl compounds, wherein said polyhydroxyl compounds may be a mixture of polyether and polyester (Col 2 lines 55-62; col 3 lines 36-39). Therefore based on the disclosure of Bayer Otto et al which is incorporated into Ramello et al, patentees clearly teach for the combination of both polyester and polyether polyol in the polyurethane backbone, however patentees are silent in specifying amounts of each compound. Nevertheless, based on the limited listed of disclosed polyhydroxyl compounds, it would have been obvious to arrive at the claimed (a):(b) ratio of claim 1 based on the motivation it has been held where the general conditions of a claim are disclosed in the prior art, discovering the optimum value or workable range involves only routine skill in the art. *In re Aller,* 105 USPQ 233; *In re Reese* 129 USPQ 402. Similarly, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch,* 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramello et al ('972) in view of Rhoades et al ('824). Aforementioned, Ramello et al renders obvious an aqueous dye receiving coating composition containing both polyester and polyether based polyurethane, and multifunctional cross-linking compound that consists of ethylene diamine, and diethylenetriamine, but fail to teach polyfunctional aziridine (Col 7 lines 64-67; col 8 lines 1-2).

8. Rhoades et al teach a water dispersible polyurethane composition useful in receiving aqueous dye coatings, wherein the polyurethane is the reaction product of an isocyanate-terminated prepolymer and multi-functional cross-linker (Abstract; col 6 lines 56-62). In particular, patentees disclose chain extenders consisting of compounds such as ethylene diamine, diethylene triamine, and polyaziridine, wherein the polyaziridine provides superior intra-molecular cross-linking, which provides improved solvent resistance for the cured coating (Col 7 lines 6-7, 36-38, and 51-52).

9. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include polyaziridine as the cross-linking agent in Ramello et al based on motivation that both compositions are water-dispersible polyurethanes that are in contact with dye compositions and polyaziridine improves the performance properties of the resulting cured coating.

Response to Arguments

10. Applicant's arguments, filed 6/26/2007, with respect to the rejection of claims 7-10 and 12-13 under 35 U.S.C. 103(a) as being unpatentable over Rhoades et al ('824) in view of Eckell ('293) have been fully considered and are persuasive. The rejection has been withdrawn.

11. Applicant's arguments filed 6/26/2007 with respect to the rejection of claims 7-8 and 10, and 12-13 as being unpatentable over Ramello et al in view of Eckell and claims 7 and 9 as being unpatentable over Ramello et al in view of Eckell and in further view of Rhoades et al under 35 U.S.C. 103(a) have been fully considered but they are moot in view of the rejection presented above.

12. Please note that due to an inadvertent oversight, the office action dated 3/28/2007 originally stated Ramello et al did not teach the combination of linear polyhydroxyl polyester and polyhydroxyl polyether compounds in the formation of polyurethane prepolymer. However, as previously stated in the rejection above, the claimed compounds are in fact disclosed. It is not seen that this constitutes a new issue as Ramello et al did in fact set forth the necessary limitations to anticipated the claims, and by the previous office action, applicants were made aware of this reference and had ample opportunity to address the reference.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin J. Gillespie whose telephone number is 571-272-2472. The examiner can normally be reached on 8am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-

272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. Gillespie

RABON SERGENT
PRIMARY EXAMINER